

The Lowdown on Hi-Fi



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If you are a complete hi-fi maniac then this booklet is not for you. You probably know more about the subject than we do, so go back to your wiring diagrams, pick up your soldering iron and enjoy yourself.

This booklet is intended for anyone who would like to have a hi-fi system but knows very little about it and wouldn't recognise a woofer if it came up and bit him.

This booklet is basic.

But when you've read it you'll be able to come to some decisions of your own about what you want in hi-fi and what you will probably have to pay for it.

The final decision can only be



made after you've talked to an expert hi-fi dealer. And all reputable dealers in Australia are expert at their jobs and they don't mind you taking time over your decision. And they don't mind answering what might appear to be damn silly questions.

After all, buying a hi-fi set-up is an expensive proposition and you should approach it with all the care that you would use in buying a car or acquiring a wife. (On second thoughts we're not so sure about the last bit but let it stand.)

A hi-fi unit consists of at least three basic components. First you need the source, which can be a record player — transcription unit to

purists – a tape recorder or (if the government in their wisdom ever let us have FM instead of giving it to the taxis) a wireless, or be pedantic and call it a tuner.

Although any or all of these gadgets may have amplifiers and loudspeakers built in it is not normally the case in hi-fi.

So the next piece of equipment you need is an amplifier. In the simplest possible terms an amplifier takes the little noise signal that comes from the source and increases it into a louder signal which can be converted by the loudspeakers into a loud, but clear and beautiful, noise.

The loudspeaker systems are the last line in the chain. Note that we

refer to loudspeaker systems in the plural. That is because most recordings today are made stereophonically. You need two loudspeaker systems to produce a stereo effect.



Loudspeaker systems are cabinets which can contain two or more loudspeakers connected together.

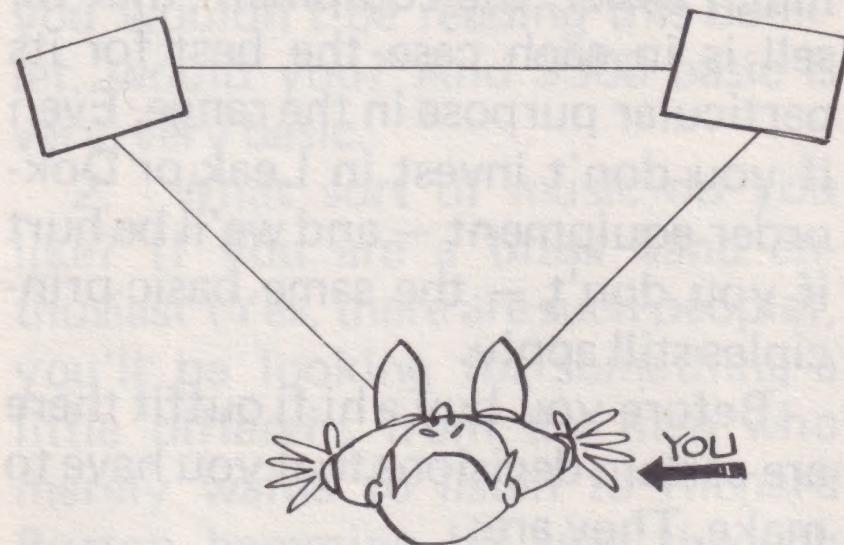
Let's clear up the point about stereo before we go any further. People listen with two ears. One each

side of the head under normal circumstances.

By having two ears you can judge where a sound is coming from.

The idea of stereo is to duplicate, as near as is humanly possible, the conditions in which the original recording was made. It isn't perfect. What in this life is? But as almost all records and pre-recorded tapes are made stereo and as it is commercially by far and away the best system that will be available for many years to come it's what you'll buy if you want true high fidelity. In order to achieve proper stereo it is important that the loud speakers be positioned separately, preferably six feet apart. That's why radiograms with a

speaker each side of the cabinet do not give true stereo. In fact to get ideal stereo the set-up should be something like this:



Those then are your basics. An input source, an amplifier and the loudspeakers.

As this is a commercially produced booklet you can take it that

we'll be recommending equipment that we are involved with. As it happens, and this makes our job much easier, the equipment that we sell is in each case the best for its particular purpose in the range. Even if you don't invest in Leak or Dok-order equipment — and we'll be hurt if you don't — the same basic principles still apply.

Before you buy a hi-fi outfit there are certain decisions that you have to make. They are:

1. How much can you afford?
Hi-fi is not cheap.

If your total budget is less than \$300 then you will not get hi-fi. No matter what the advertisements say (and some of them promise heavenly

sound and earthly prices) hi-fi is not available below \$300 in Australia unless you are an electronic genius, and if you were an electronic genius you wouldn't be reading this booklet, would you? And \$300 basic is very, very basic.

2. What sort of music do you like? If you are a brass band enthusiast (Yes, there are such people), you'll be looking for something a little different from the man who merely wants to listen to Richard Burton hamming his way through Shakespeare with dulcet tones.

3. What sort of room will it go in? A baronial mansion needs more power than a small bed sitting room.

4. Are you a ham handed clod

like us or do you delight in delicate precise manoeuvres? There are pieces of equipment on the market which could only be handled by a brain surgeon. There are others you can switch on with a pair of boxing gloves.

5. Do you want continuous or intermittent music? An LP only gives 15 to 20 minutes a side. Unless you want to keep changing the record you will either have to get an automatic record changer or a tape recorder or a wife who will leap up every twenty minutes and change the record for you.

Having thought over those points you are now in a position to sort out what equipment you need. And



we're ready to try and convince you we should supply it.

First the input source.

There are three choices. Record player (transcription unit or turn-table), reel to reel tape recorder, cassette tape recorder. (We've left out radio. Until we get FM broadcasting the standard is not high fidelity.)

They all have advantages and disadvantages.

Record player, turntable or transcription unit. (We know they all basically mean the same thing but this is a basic guide.)

Probably the best idea to start off with.

Consists of a turntable which is

driven round at a constant speed (normally 33 1/3rd revolutions per minute). A needle (preferably diamond) which rests in the groove and picks up a signal from each side of the groove (if it's a stereo record that is). A cartridge to collect that mechanical signal and transform it into an electronic current before it goes to the amplifier where it's made a lot stronger and sent to the loudspeakers where it's made a lot stronger still. There are three types of cartridge and they all perform the same function — that is to change a mechanical movement into an electrical signal. Both signal and movement are, of course, minute. The cheapest type of cartridge is called a

crystal. Old men will remember the cat's whisker and crystal era. This cartridge works on the same basis. The second kind of cartridge is ceramic which works as well as the third type of cartridge which is called magnetic. Each of the last two types have advantages and disadvantages. It really is a question of "you pays your money and you makes your choice." And there also has to be a carefully balanced arm to hold the needle (or stylus if you want to be technically correct) and the cartridge.

There are other items which can be added on that help — but they aren't absolutely essential. For example — an automatic lifting device

(sometimes called a shaky hand device) for the arm which allows you to settle the needle neatly and carefully into the groove on the record. We know it can be done by hand — it's easier by machine.

Advantages:

1. Most good music is issued on long playing stereo records.
2. The quality of sound produced is as near perfection as is available with the current state of the art.

Disadvantages:

1. If it has an automatic record changing device on it you may, possibly, have trouble. The standard on these devices has improved beyond belief in the last few years, but it is true that most problems with



record players are centered round the automatic changer. The only solution is to buy the very best. Of course, if you're a purist, you'll change your records by hand. We think that is not an acceptable solution if you are entertaining a group of people. Unless they're all purists too.

2. The needle can wear out. Diamond needles last the longest and as a piece of advice never bother with any other kind. In the medium run you'll save money sticking to diamonds. Diamonds are a record's best friend.

3. Records are easily damaged and need care in handling. Dust is the worst enemy of discs.

Reel-to-reel tape-recorder.

You can play almost continuous music (continuous if you buy a Dokorder) and you need have no worry about damaging records — tape only requires a reasonable amount of care in handling.

You can record music of your choice in whatever order you like (but beware copyright restrictions) or you can buy pre-recorded tapes.

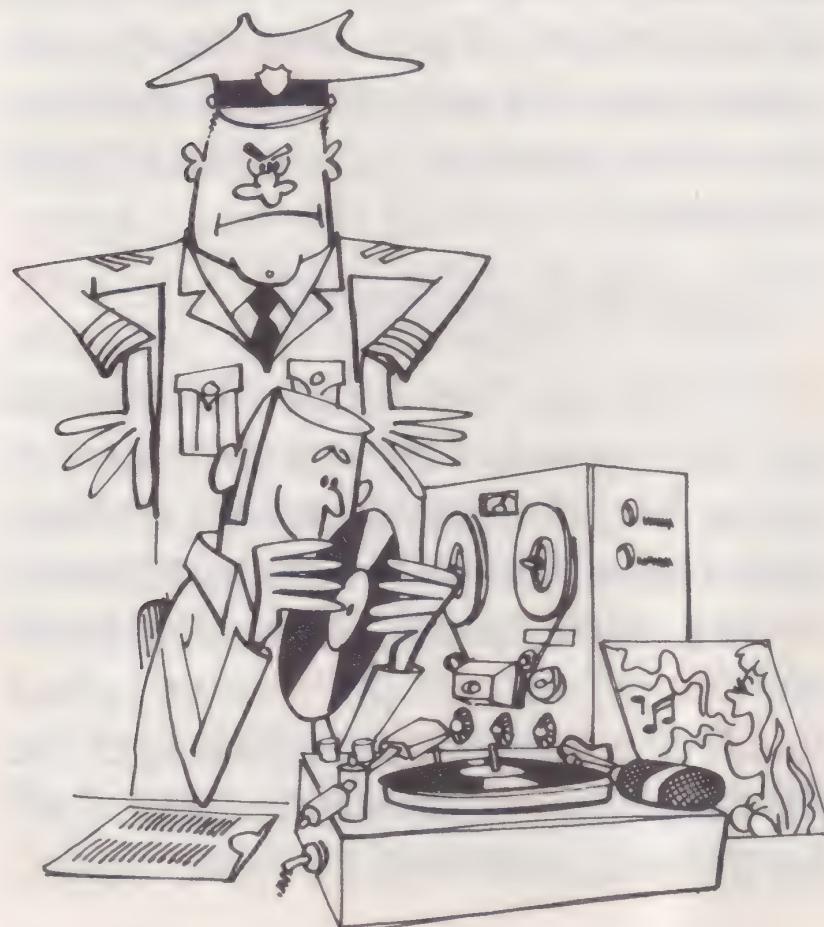
The quality of sound will be as good as you get from a record player — providing you use good tape. Cheap and nasty tape produces a cheap and nasty sound.

The disadvantages are:

The current selection of pre-

recorded tapes leaves much to be desired.

If you want to make a tape from



your own or someone else's records there are two snags. One, it's not permissible under the Copyright Act (although we've never heard of a prosecution). Two, you need a record player to play the record so that you can record it on your tape-recorder.

Cassette tape-recorders..

There are two types of cassettes on the market. The one that appears to be winning (patented by Philips) plays tape thinner than a bootlace at a very slow speed. (One and seven eighths of an inch per second). As a result the cassette is small and the playing time is relatively long (half to three quarters of an hour a side).

Problem is that this sound source is not, as yet, high fidelity. (For those who ask, rightly enough, what our definition of high fidelity is, we reply, quick as a flash, the ability to reproduce sound within the range 20-20,000 Hz. Average cassettes range from 60-12,000 Hz. It isn't enough.) Even when it has a technically brilliant system called a Dolby built in it for supressing unwanted noise, it is not as hi-fi as say, reel-to-reel tape recording. For real hi-fi it should only be considered as a supplementary source. Not as the only one.

The next stage is the amplifier.

It should be housed a small distance away from the source and

should give enough power to drive the loudspeakers.

You know how car manufacturers rate the horse power of their cars? Well, the situation is somewhat similar in amplifiers. Figures can, and are, juggled to prove almost anything.

You either have to depend on the name of a good manufacturer (may we make a small plug here for Leak) or check on unbiased reports in a magazine such as *Australian Hi-Fi*, or be guided by your local hi-fi dealer. Claims in advertising can be misleading.

Finally, loudspeakers. It's no good having a fabulous amplifier if the loudspeakers can't handle it, and

vice versa. A hi-fi system must be a matched and balanced system (more about this later), and the loudspeakers must be considered as part of the total concept. We can honestly and modestly assure you that Leak loudspeakers at their price are the best available in the industry. And that's not just our opinion. Independent reviewers support us in this.

Instead of loudspeakers you can use a head-set which will plug into most amplifiers. These have the advantage of allowing you to enjoy the music at any volume you like without disturbing anyone else. They have the disadvantage that medical opinion is now suggesting

that you might get, in the long term, ear troubles if you insist on using them at full blast.



Obviously, we're biased but Leak have got perhaps the most reputable name in high fidelity. Their amplifiers have set a standard by which other amplifiers must be judged and their loudspeakers are, we honestly think, by far and away the best for their price in the world.

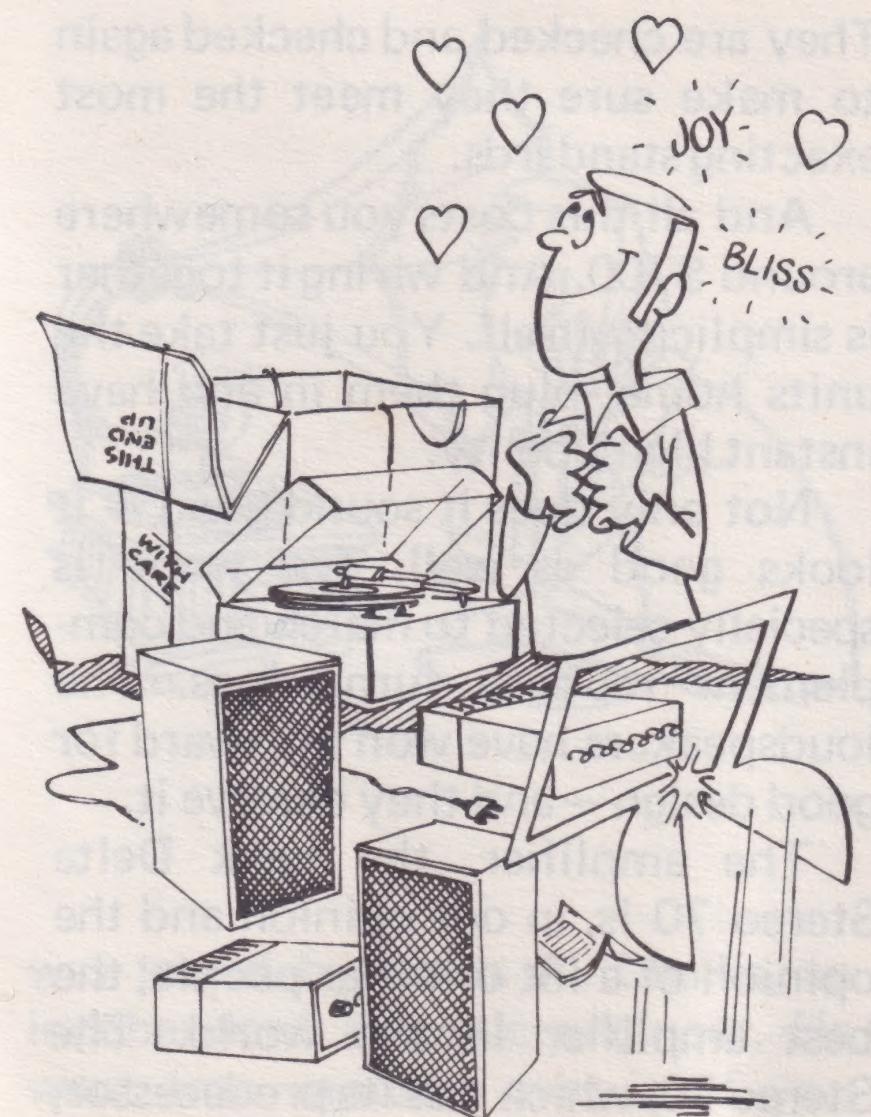
A real hi-fi maniac chooses each component for his rig after months of painful cogitation. And we hate to report that a lot of the time he gets it wrong. Because his system doesn't necessarily balance. Not all pieces of hi-fi equipment are necessarily compatible.

But Leak have always had the slight problem — and they admit it — that they did not sell a total range of

high fidelity equipment. Because Leak have a simple – and slightly old-fashioned – philosophy that what they do, they do perfectly or not at all.

Now they have arrived at the answer. And they are producing a full range of high fidelity equipment which matches and balances exactly.

The loudspeakers are matched to the Delta 70, the turntable is matched to the amplifier. They are perfectly in balance and produce as high fidelity hi-fi as one is likely to find in this imperfect world. How good are they? Serious critics have rated them amongst the world's best. Which when you see the care that is put into their production is understandable.



They are checked and checked again to make sure they meet the most exacting standards.

And all this costs you somewhere around \$700. And wiring it together is simplicity itself. You just take the units home, plug them in and have instant high fidelity.

Not only does it sound good — it looks good as well. The wood is specially selected to match and complement modern furnishings. The loudspeakers have won an award for good design — and they deserve it.

The amplifier, the Leak Delta Stereo 70 is, in our opinion and the opinion of a lot of other people, the best amplifier in the world. The Stereo 70, which was its predecessor,



was tested by Louis A. Challis, an independent acoustic engineer. He went into raptures over it. If you

would like a copy of his report drop us a line and we'll send you one.

The Leak Delta 70 is an improved version of the Stereo 70 which is rather like improving on perfection.

The only way to tell how good the Leak sound system can be is to hear it. Your local high fidelity dealer will happily arrange for a demonstration of the total Leak sound. If you have any problems drop us a line and we'll try and fix something up. Because the Leak high fidelity system is just that. Fidelity at its highest. And we want you to listen to it.

We have a maniac enthusiast here called Tom Meyden who thinks the high fidelity world revolves

around Dokorder. He may be right. Anyway, he will personally send you the good word to encourage you to make what he rightly regards as the only possible choice.

This paragraph is meant for millionaires only. We've got a machine which incorporates everything – and we mean everything – and looks like the console panel of a 747 jet. We know of no aspect of hi-fi that it cannot handle superbly. Mark you, it costs \$3,500. Send us a cheque for the full amount and we should be able to deliver one to you in three months. You'll be the first one in your street to have one. There's only one in Australia at the moment.

For further information write to:
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